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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,930	04/20/2004	Trent J. Brundage	P0977	5107
23735	7590	01/09/2006	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			CARTER, AARON W	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/828,930 ✓

Applicant(s)

BRUNDAGE ET AL.

Examiner

Aaron W. Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)     | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 9 and 16 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized.”

Claims 9 and 16, while defining “a storage medium on which is stored instructions for performing...” does not define a “computer-readable medium” and is thus non-statutory for that reasons. A “storage medium on which is stored instructions for performing...” can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on “computer-readable medium” in order to make the claim statutory.

“In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer

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software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 9 recites the limitation "the filtered signal" in line 6. There is insufficient antecedent basis for this limitation in the claim. It is indefinite as to whether the limitation is talking about the "residual signal" or another portion of the signal.

Claim 2 recites the limitation "residual signals" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 9-16 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,037,984 to Isnardi et al. ("Isnardi").

As to claim 1, Isnardi discloses a method of processing a digitally watermarked media signal, the method comprising:

Receiving a watermarked media signal (Fig. 6, MPEG Bitstream);

Filtering the watermarked media signal to leave a residual signal from which a digital watermark is decoded (Fig. 6, element 602 and column 7, lines 5-9, wherein the media signal is filtered to leave residual signal (W));

Sending the filtered signal to a remote system for extracting the digital watermark from the residual signal (Fig. 6 element 604 and column 7, lines 16-21, wherein the signal is sent to the "Watermark Remover/Comparator" system for extracting which corresponds to a remote system since they are remote from the rest of the circuits/systems 602 and 606).

As to claim 2, Isnardi discloses the method of claim 1, including:

Progressively sending residual signals in more detail to the remote system (column 2, lines 64-65 and Fig. 6, wherein each block being sent on a block-by-block basis corresponds to progressively sending portions and wherein the signal is sent to the "Watermark Remover/Comparator" system (element 604), each block providing more detail).

As to claim 3, Isnardi discloses the method of claim 1, wherein the residual signal comprises a quantized version of the watermarked media signal (column 7, lines 8-9).

As to claim 4, Isnardi discloses the method of claim 1, including:

Transforming the watermarked signal into a domain in which the digital watermark is embedded before sending the filtered signal to the remote system (column 4, lines 5-11 and column 7, lines 5-9).

As to claim 5, Isnardi discloses the method of claim 4, including transforming the watermarked signal into a color space (column 3, lines 54-58 and column 7, lines 5-9).

As to claim 9, please refer to the rejection of claim 1 above.

As to claim 10, Isnardi discloses a method of processing a digitally watermarked media signal, the method comprising:

Receiving a watermarked media signal (Fig. 6, MPEG Bitstream);

Identifying portions of the watermarked media signal to send to a remote system for watermark decoding (Fig. 6, element 602 and column 2, lines 61-64, wherein blocks correspond to portions identified); and

Progressively sending the portions of the watermarked media signal to the remote system for watermark decoding (column 2, lines 64-65 and Fig. 6, wherein each block being sent on a block-by-block basis corresponds to progressively sending portions and wherein the signal is

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sent to the “Watermark Remover/Comparator” system (element 604) for extracting which corresponds to a remote system since it is remote from the rest of the circuits/systems 602 and 606).

As to claim 11, Isnardi discloses the method of claim 10, including:

Identifying blocks of the watermarked signal that are likely to have a stronger watermark signal for sending to the remote system (column 7, lines 14-16, wherein the control signal contains info identifying which blocks contain watermark data).

As to claim 12, Isnardi discloses the method of claim 11, wherein the identifying includes analyzing signal metrics of the blocks and ranking the blocks for sending based on the signal metrics (column 7, lines 14-16).

As to claim 13, Isnardi discloses the method of claim 10 including:

Progressively sending frames of the watermarked signal to the remote system for watermark decoding (column 2, lines 64-65 and column 3, lines 46-63, wherein each frame is divided into blocks which are progressively sent for watermark decoding).

As to claim 14, Isnardi discloses the method of claim 13, including progressively sending frames of images (column 2, lines 64-65 and column 3, lines 46-63, wherein each frame is divided into blocks which are progressively sent for watermark decoding).

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As to claim 15, Isnardi discloses the method of claim 13, including:

Progressively sending filtered frames of the watermarked signal (column 2, lines 64-65 and column 3, lines 46-63, wherein each frame is divided into blocks which are progressively sent for watermark decoding and Fig. 6, element 602 and column 7, lines 5-9, wherein the frames are filtered to leave residual signal (W)).

As to claim 16, please refer to the rejection of claim 10 above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isnardi.

As to claims 6-8, Isnardi discloses receiving a watermarked signal. Isnardi does not disclose expressly the capturing of the watermarked media signal by a capture device or that the capture device is a camera or microphone. However the process disclosed by Isnardi is generally applicable to any type of watermarked media signal. The examiner takes Official Notice that it is well known that watermarked signals are captured using capture devices like the camera and



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microphone. Therefore, it would have been obvious capture a watermarked media signal with a capture device like the camera or microphone.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,154,571 to Cox et al. discloses decoding a watermarked media signal.

USPN 5,859,920 to Daly et al. discloses decoding a watermarked media signal.

USPN 6,529,506 to Yamamoto et al. discloses decoding a watermarked media signal.

USPN 5,933,798 to Linnartz discloses decoding a watermarked media signal.

USPN 6,381,698 to Devanbu et al. discloses decoding a watermarked media signal.

USPN 6,400,826 to Chen et al. discloses decoding a watermarked media signal.

USPN 6,332,030 to Manjunath et al. discloses decoding a watermarked media signal.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is (571) 272-7445.

The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

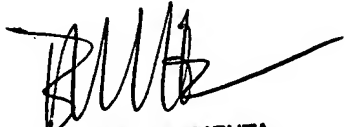
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

awc

*AJC*

  
**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
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